

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,013,332 B2
APPLICATION NO. : 09/681106
DATED : March 14, 2006
INVENTOR(S) : Guy Friedel et al.

Page 1 of 12

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

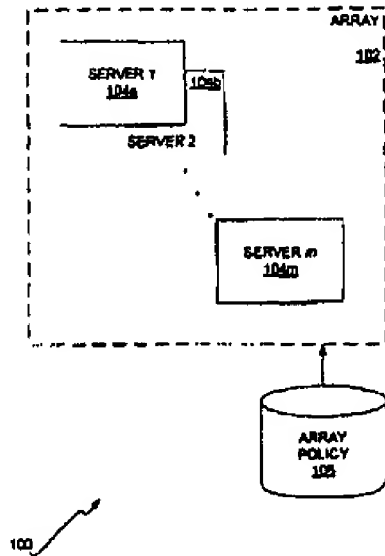
Delete the title page and substitute therefore the attached title page.

On the face page, in field (56), under "Other Publications", in column 2, line 11, after "CA" insert --, --.

On Sheet 1 of 12, please replace Fig. 1(a) with the following figure:

ARRAY ONLY

FIG 1(a)



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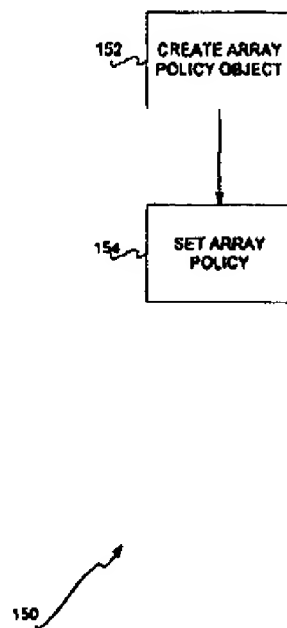
Page 2 of 12

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 2 of 12, please replace FIG 1(b) with the following figure:

ARRAY ONLY

FIG 1(b)



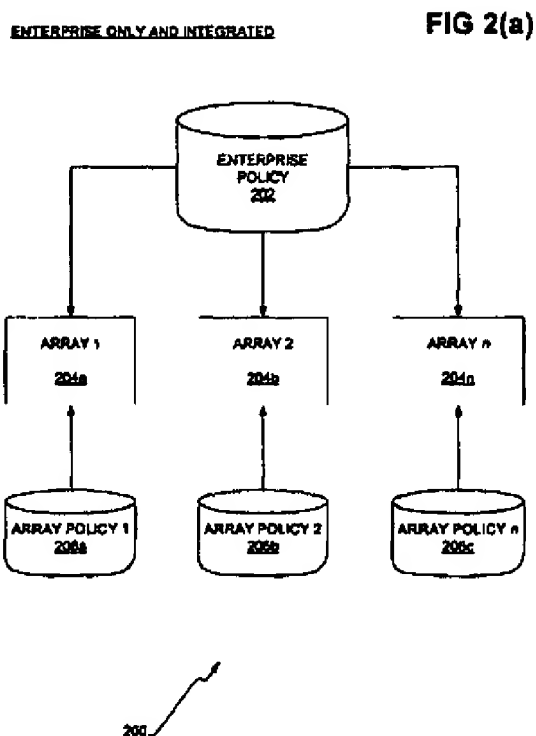
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 3 of 12, please replace FIG 2(a) with the following figure:



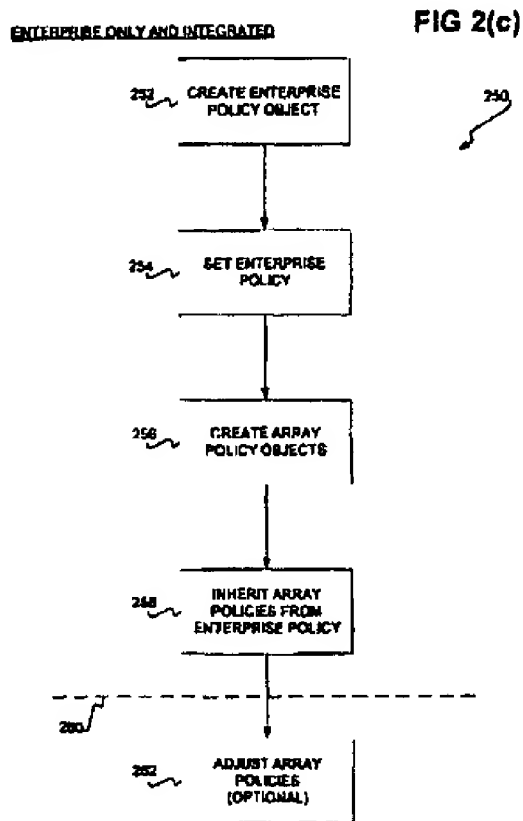
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 5 of 12, please replace FIG 2(c) with the following figure:



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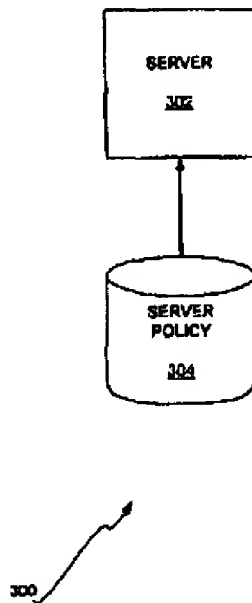
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 6 of 12, please replace FIG 3(a) with the following figure:

SERVER ONLY

FIG 3(a)



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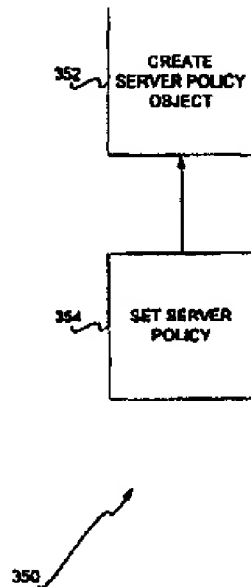
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 7 of 12, please replace FIG 3(b) with the following figure:

SERVER ONLY

FIG 3(b)



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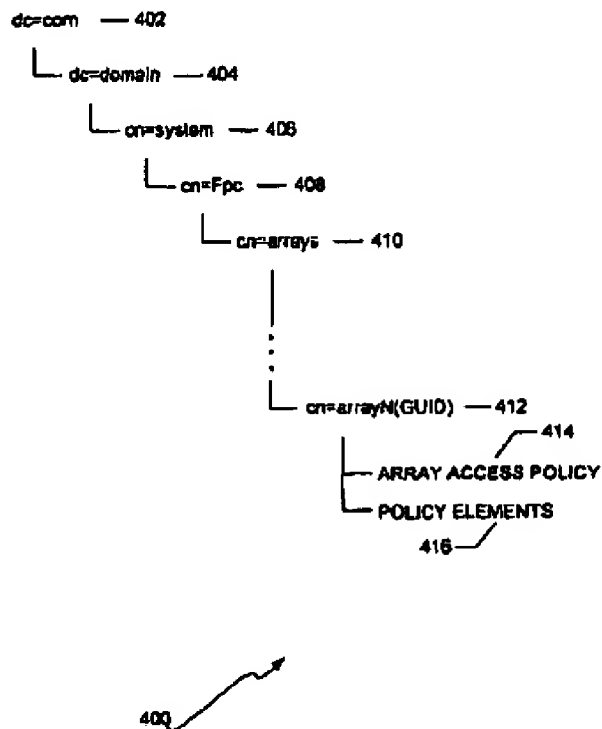
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 8 of 12, please replace FIG 4 with the following figure:

ARRAY POLICY OBJECT

FIG 4



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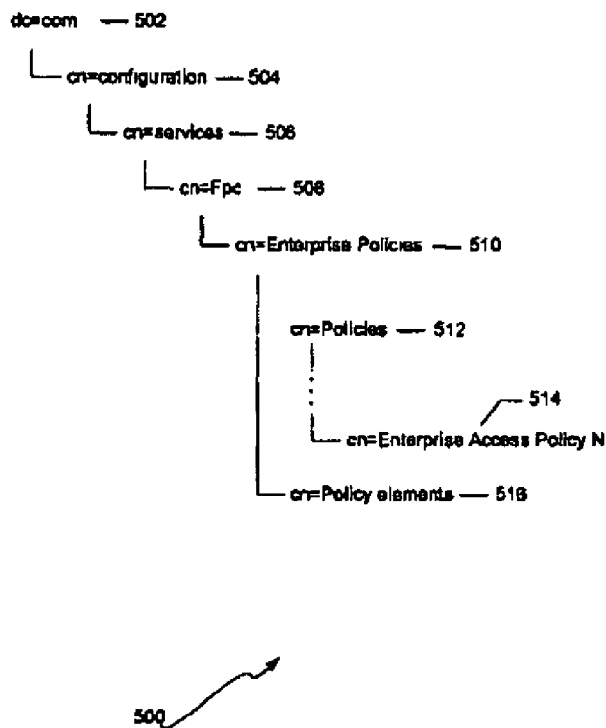
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 9 of 12, please replace FIG 5 with the following figure:

ARRAY POLICY OBJECT

FIG 5



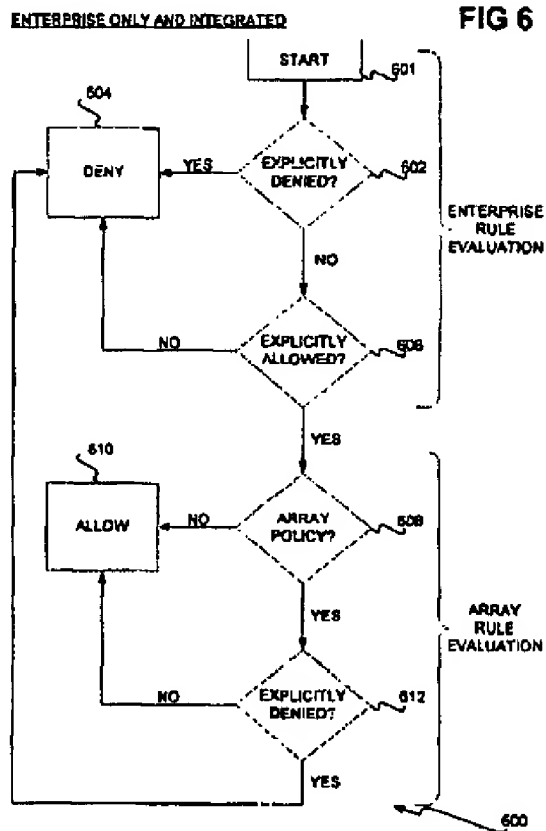
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 10 of 12, please replace FIG 6 with the following figure:



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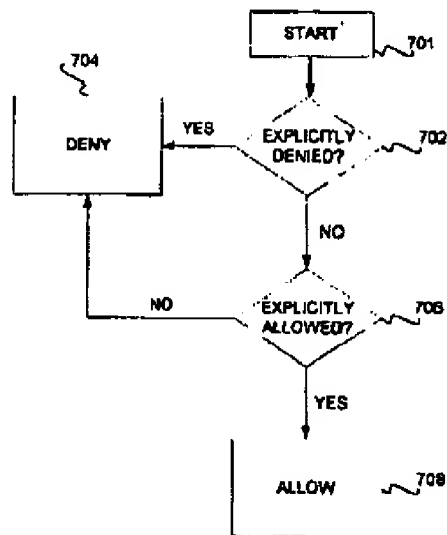
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Sheet 11 of 12, please replace FIG 7 with the following figure:

ARRAY ONLY AND SERVER ONLY

FIG 7



700

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 12, line 18, in Claim 1, after "each of one" delete "of" and insert -- or --, therefor.

In column 13, line 61, in Claim 13, delete "govering" and insert -- governing --, therefor.

In column 13, line 65, in Claim 13, delete "time" and insert -- type --, therefor.

In column 14, line 18, in Claim 15, delete "byte" and insert -- by the --, therefor.

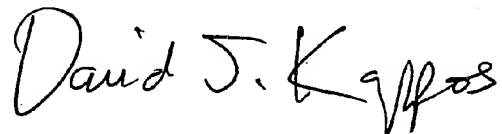
In column 14, line 59, in Claim 17, after "the" insert -- at --.

In column 15, line 12, in Claim 19, delete "may" and insert -- array --, therefor.

This certificate supersedes the Certificate of Correction issued September 29, 2009.

Signed and Sealed this

Third Day of November, 2009

A handwritten signature in black ink that reads "David J. Kappos". The signature is written in a cursive, flowing style with a large initial "D" and a stylized "K".

David J. Kappos
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Friedel et al.

(10) **Patent No.:** **US 7,013,332 B2**
 (45) **Date of Patent:** **Mar. 14, 2006**

(54) **DISTRIBUTED POLICY MODEL FOR ACCESS CONTROL**

(75) Inventors: **Guy Friedel**, Bellevue, WA (US); **Ariel Katz**, Redmond, WA (US); **Yaron Shamir**, Zichron Yaacov (IL); **Abraham Nathan**, Haifa (IL)

(73) Assignee: **Microsoft Corporation**, Redmond, WA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 739 days.

(21) Appl. No.: **09/681,106**

(22) Filed: **Jan. 9, 2001**

(65) **Prior Publication Data**
 US 2002/0138631 A1 Sep. 26, 2002

(51) **Int. Cl.**
G06F 15/173 (2006.01)

(52) **U.S. Cl.** **709/223; 709/224; 709/225; 713/201; 707/10**

(58) **Field of Classification Search** **709/223-225; 709/229; 713/201; 707/3, 10, 200**
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,787,427 A * 7/1998 Benantar et al. 707/9
 5,911,143 A * 6/1999 Deinbaur et al. 707/103 R
 5,991,877 A * 11/1999 Luckenbaugh 713/200
 6,466,932 B1 * 10/2002 Dennis et al. 707/3
 6,647,388 B1 * 11/2003 Numao et al. 707/9
 6,708,276 B1 * 3/2004 Yarsa et al. 713/201
 6,718,380 B1 * 4/2004 Mohabani et al. 709/223
 2002/0002684 A1 * 1/2002 Fox et al. 713/200
 2003/0023587 A1 * 1/2003 Dennis et al. 707/3

OTHER PUBLICATIONS

T.C. Ting, SAs Demurjian and M.Y. Hu, Requirements, Capabilities and Functionalities of User-Role Based security for an Object-Oriented Design Model, Jun. 25, 1997, pp. 275-296.*

Dirk Jonscher, Extending access control with duties—realized by active mechanisms, Jun. 25, 1997, pp. 91-111.*

Greenwald, A new security policy for distributed resource management and access control, Proceedings of the UCLA conference on New security paradigms workshops Sep. 17-20, 1996, Lake Arrowhead, CA USA.

NeveX Policy Suite, Technical Brief, <http://www.neveX.com/Technical%20Brief.html>, date unknown.

* cited by examiner

Primary Examiner—Ario Etienne

Assistant Examiner—LaShonda Jacobs

(74) *Attorney, Agent, or Firm*—Lee & Hayes, PLLC

(57) **ABSTRACT**

A distributed policy model for access control is disclosed. In an enterprise-only mode, each node within a networking environment has its resource access governed by the same enterprise-wide policy. The enterprise-wide policy is set through creation of one or more enterprise policy objects. In an integrated mode, nodes are organized in a number of arrays. Each array has an array-wide policy set through creation of an array policy object. Each array-wide policy initially inherits the enterprise-wide policy. Additional resource access and protocol use restrictions can be added to the individual array-wide policies. In an array-only mode, each array has an array-wide policy also set through creation of an array policy object, but the policy does not necessarily initially inherit an enterprise-wide policy. In a stand-alone mode, a single server has its own policy.

21 Claims, 12 Drawing Sheets

ENTERPRISE ONLY AND INTEGRATED

